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A Fun *Quiz Yourself* Section Included!

Madame Curie

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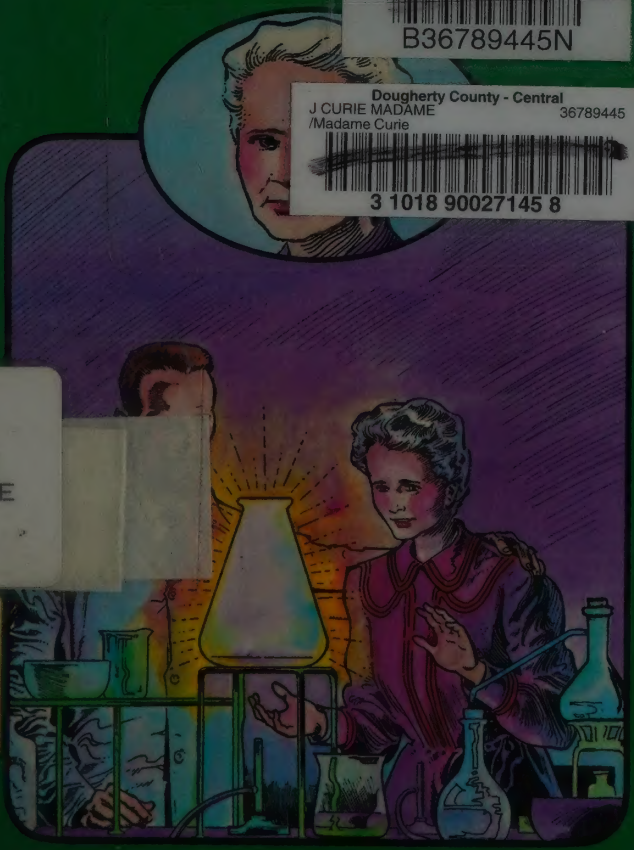

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Madame Curie

Madame Curie

Madame Curie

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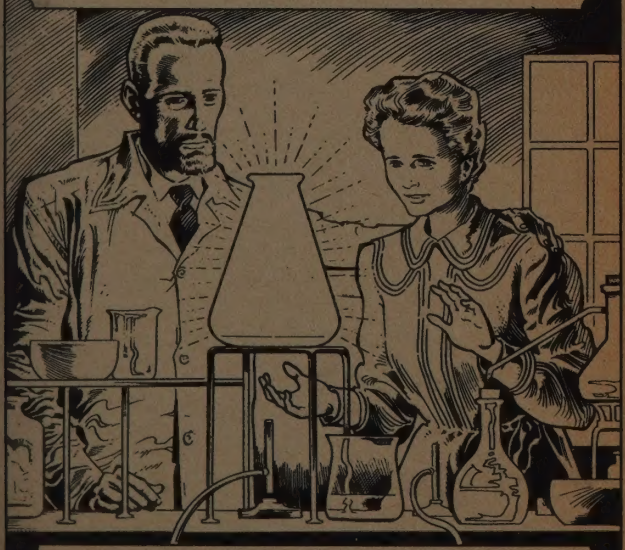
On a May night in 1902, in Paris, France, Marie and Pierre Curie went to the old shed where Marie had been working. In the dark they saw a beautiful blue light. It was the glow of radium.

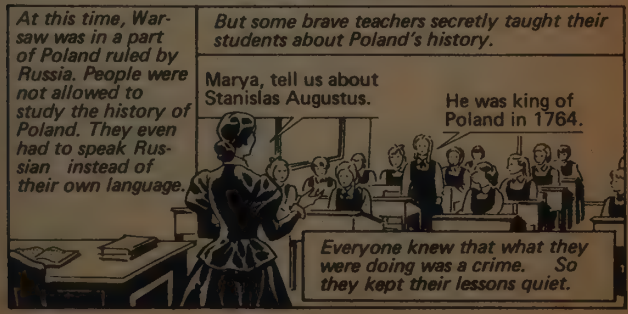


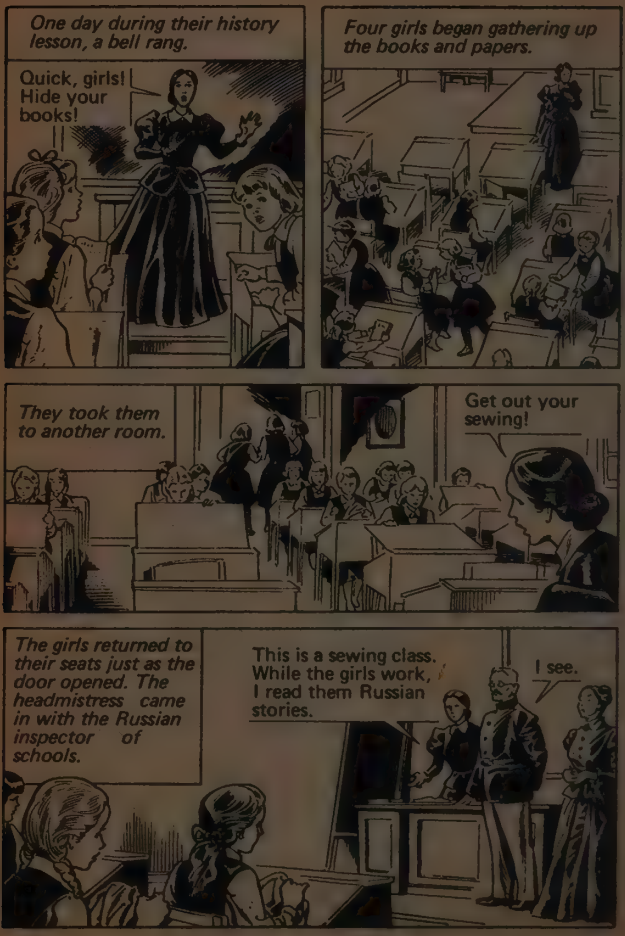
Marie Curie was the first great woman scientist. Thanks to her work, doctors would one day be able to use radium to treat people with cancer.

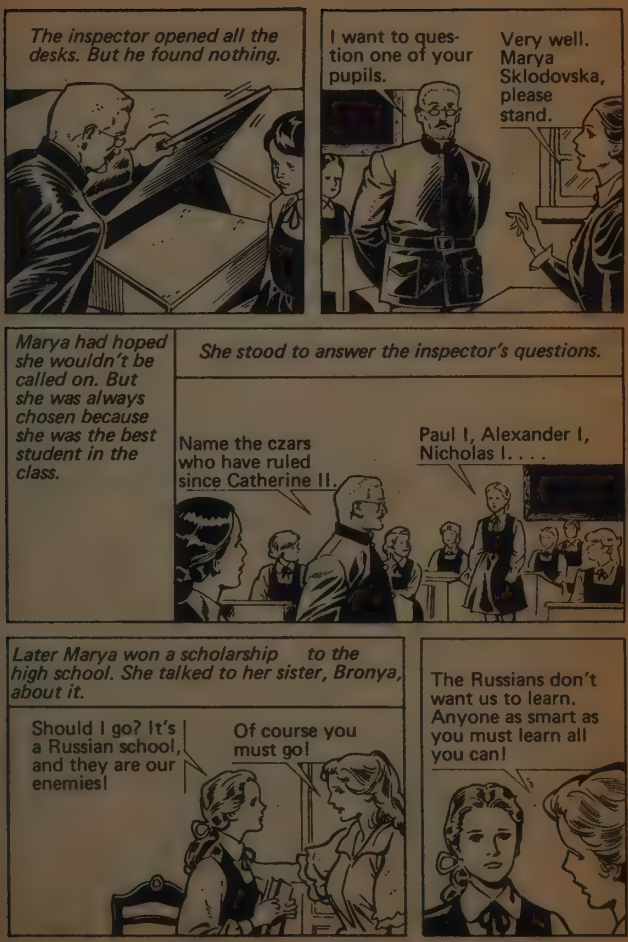
Childhood in Poland

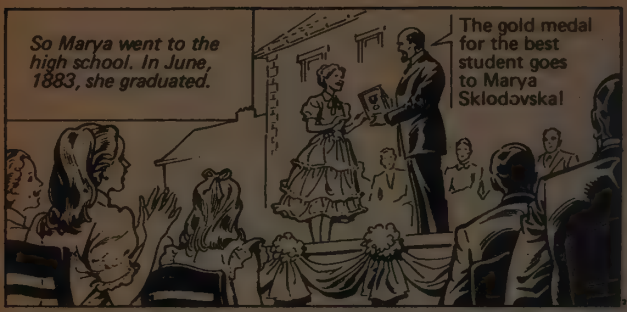
Marie was born Marya Sklodovska in Warsaw, Poland, in 1867.
My dear children—you have a new sister, Marya!
When can we see her?

Marya's father was a teacher. Even as a small child, Marya loved to watch him work.
You like to help me, don't you?
Yes!
Marya never forgot the things her father showed her. She wanted to grow up to be just like him.

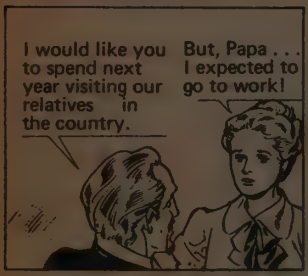

At this time, Warsaw was in a part of Poland ruled by Russia. People were not allowed to study the history of Poland. They even had to speak Russian instead of their own language.
But some brave teachers secretly taught their students about Poland's history.
Marya, tell us about Stanislas Augustus.
He was king of Poland in 1764.
Everyone knew that what they were doing was a crime. So they kept their lessons quiet.

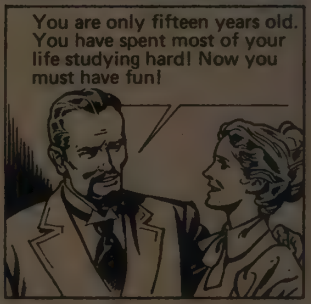

One day during their history lesson, a bell rang.
Quick, girls! Hide your books!
Four girls began gathering up the books and papers.
They took them to another room.
Get out your sewing!
The girls returned to their seats just as the door opened. The headmistress came in with the Russian inspector of schools.
This is a sewing class. While the girls work, I read them Russian stories.
I see.


The inspector opened all the desks. But he found nothing.
I want to question one of your pupils.
Very well. Marya Sklodovska, please stand.
Marya had hoped she wouldn't be called on. But she was always chosen because she was the best student in the class.
She stood to answer the inspector's questions.
Name the czars who have ruled since Catherine II.
Paul I, Alexander I, Nicholas I. . . .
Later Marya won a scholarship to the high school. She talked to her sister, Bronya, about it.
Should I go? It's a Russian school, and they are our enemies!
Of course you must go!
The Russians don't want us to learn. Anyone as smart as you must learn all you can!



Her father was proud of her.





So Marya went to the country. Her aunts gave her good food. Her uncles taught her to ride horses. And her cousins took her to parties.

Soon the night of the big party came. The girls climbed into sleighs. Their escorts rode beside them.

They rode from village to village. Along the way, other sleighs joined them. Some people rode in front of the sleighs, playing music.

Sometimes they stopped at big houses where they ate and danced.
It's wonderful! How long does it go on?
For another day and night!

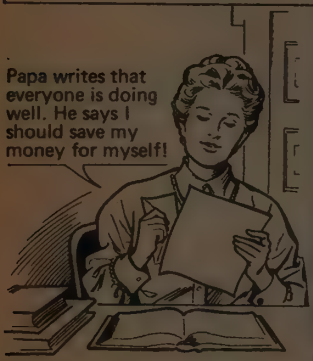
The Young Teacher

But the party ended at last. And so did Marya's wonderful year. In September, she returned to Warsaw.
I want to earn money so I can help Papa. And I want to help you become a doctor, too.
Thank you! But how will you do it?
I am writing notes to people asking for a job as a teacher.
But not many people wanted lessons. And those who did made teaching hard work for Marya.
My son needs a teacher. But you are much too young!
Sonny *needs* reading lessons, but he doesn't want them.
I *won't* learn to read!
I don't have the money to pay you now.
Marya seemed to spend all her time walking from job to job. She made very little money.

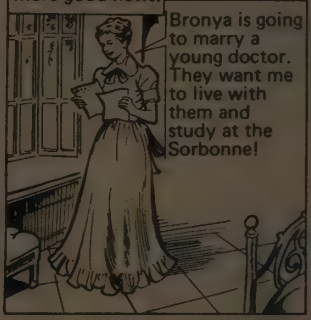
I have found a job in the country with a family that needs a teacher for their children.
Live in the country? Leave Papa? Why should you do that for me?
Bronya, you've been waiting for years to become a doctor. You can help me later.
So Bronya went to Paris to enter the Sorbonne. And in January, 1886, eighteen-year-old Marya went to the country home of the Zs.
Miss Sklodovska.
Come in, my dear! Take off your coat! Warm yourself with hot tea!
Later, Marya met the children she was to teach.
This is Bronka, my oldest daughter. This is Andzia, and this is Julek. They will be your pupils.
I am glad you have come!

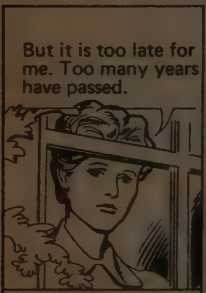
The family was friendly, and Marya got along well. Then one day the oldest son, Casimir, came home for the holidays.
I've never known a girl like you! You do everything so well!
Marya, I love you! Will you marry me?
Yes, Casimir.
But Casimir's parents were not pleased.
You want to marry a governess? Never!
Oh, Casimir, you must be crazy!
So Casimir returned to school, and Marya went on with her teaching. No more was said about the marriage.
Bronya needs the money I send, so I must stay here! I will forget about love.

For three years Marya worked with her pupils. In her spare time, she studied whatever books she could find. When she had almost given up hope, things began to change for the better.



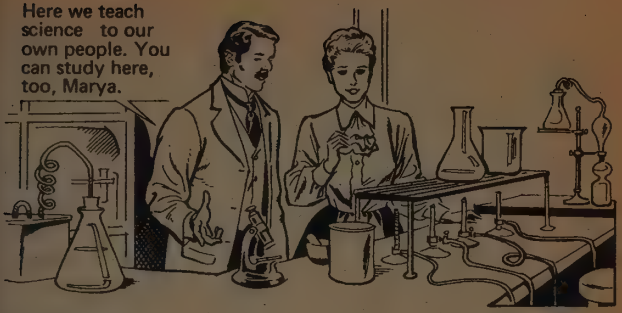
Spring came, and there was more good news.





Instead of going to Paris, Marya returned to Warsaw and took a new job. She saw her father often. And one evening she visited a cousin.

This looks like such an important place!
We fooled the Russians into thinking it is a museum. But back here we have a laboratory where we can work in secret.



From that day on, Marya knew what she wanted to do. She spent every free moment in the laboratory. And she saved all the money she could. At last, she wrote Bronya that she could come to Paris.

The Sorbonne

Three days later, Marya reached Paris. She went to the apartment where Bronya lived with her new husband, Casimir Dluski.
You are here at last!
Welcome, little sister!

I will show you your room. It's small, but quiet.
Please . . . could I see the Sorbonne first?

Following Bronya's directions, she took a bus to the Sorbonne.
France—where the people are free!

At last she reached the Sorbonne.
FRENCH REPUBLIC
FACULTY OF SCIENCE
FIRST QUARTER
CLASSES WILL BEGIN AT THE SORBONNE ON NOV. 3 1891
What great things I will learn here!

She went in, paid her money, and signed up for classes.
Your name?
Marya . . . no, Marie Sklodovska! From now on I will use the French spelling!
Soon classes began.
I thought I knew so much. But I know nothing! I must study, study, study!
But it was often hard for Marie to study. The Dluskis liked to give parties, and there was always music.
Sometimes a young pianist, Ignace Paderewski, would play for them. Marie could not study as hard as she wished to.
And so . . .
I'm going to look for a room closer to my school.
You will not have enough money to live on!

But Marie moved anyway. She found an attic room. It had only a lamp for light, a small stove for heat, and a pitcher with which to bring water from downstairs.
No one bothered her. She could study most of the night if she wanted to.
Sometimes she even forgot to eat. She grew pale and thin. One day she fainted on the stairs, and a friend ran for Casimir Dluski.
What's wrong?
The little one has been starving herself! Put her to bed and feed her!
But no one could stop Marie from studying. And after final examinations, the best student was named.
First in the class is Marie Sklodovska!

Marie spent that summer in Warsaw. When she returned to Paris, she was well rested.

Soon she spoke to friends about a problem.

I have a chance to do some research on my own, but there is no laboratory large enough.

A friend of mine might have a place you could use.

Perhaps you have heard of him. His name is Pierre Curie.

Oh yes! He is a great scientist. He won't be interested in my work.

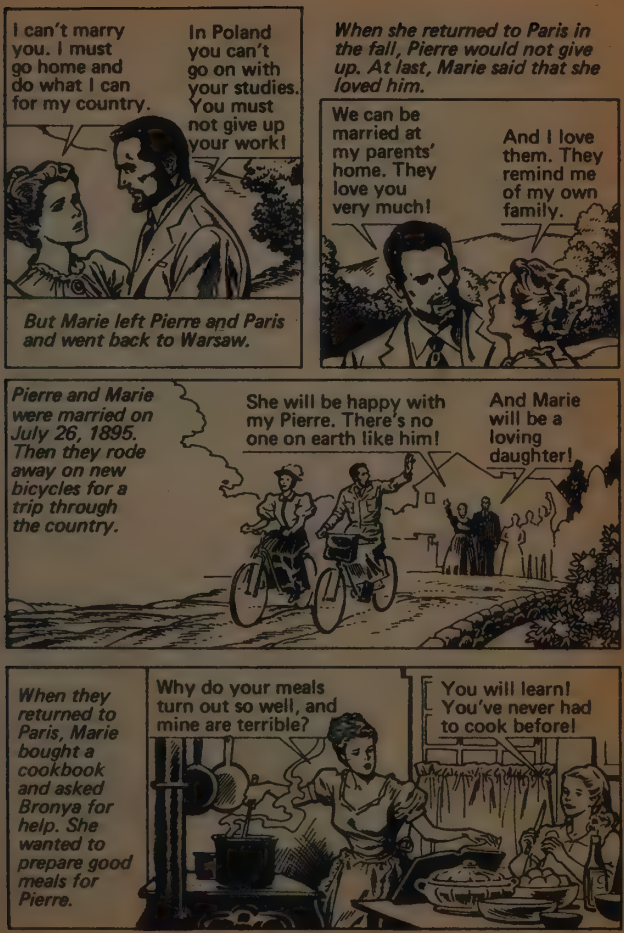
But Marie returned the next day to meet Pierre Curie.

Pierre, I want you to meet Marie Sklodovska.

It wasn't long before Pierre fell in love with Marie. Before she returned to Poland again, he asked her to marry him.

Oh, Pierre, I always put my work first. I never planned to marry!

And I did the same! But I never thought I would meet a girl who shared my interests.


I can't marry you. I must go home and do what I can for my country.
In Poland you can't go on with your studies. You must not give up your work!
But Marie left Pierre and Paris and went back to Warsaw.
When she returned to Paris in the fall, Pierre would not give up. At last, Marie said that she loved him.
We can be married at my parents' home. They love you very much!
And I love them. They remind me of my own family.
Pierre and Marie were married on July 26, 1895. Then they rode away on new bicycles for a trip through the country.
She will be happy with my Pierre. There's no one on earth like him!
And Marie will be a loving daughter!
When they returned to Paris, Marie bought a cookbook and asked Bronya for help. She wanted to prepare good meals for Pierre.
Why do your meals turn out so well, and mine are terrible?
You will learn! You've never had to cook before!

In September, 1897, a daughter was born to Marie and Pierre.
Isn't she the most beautiful baby you've ever seen?
We'll name her Irene.
But Marie still went to the laboratory for eight hours every day. She left the baby with a nurse.
Do you promise to take her out for fresh air and sunshine?
Yes, indeed!
She and Pierre spent their evenings studying.
We know about the strange rays given off by uranium. I want to find out what causes those rays.
You may find out something important!
I'll need my own place to work.
I'll speak to the man in charge of the school. There must be a room there you can use.

Studying Radioactivity

Marie was offered a glassed-in porch. It had no heat, but she took it anyway and started her work.
I wonder if these rays can be found in any other metals.
To find out, Marie made more tests.
Pierre! I found today that thorium gives off these rays, too.
That's wonderful!
What should we call these strange rays? How about "radioactivity?"
Then Marie did tests to learn the amount of radioactivity in different metals. She was surprised by what she found.
I have done my tests over and over. There is more radioactivity here than there should be.

She spoke of her findings with Pierre.

Unless I have made a mistake, there must be an *unknown* element present.

I know! You've made no mistake. You've discovered a *new* element. What will you call it?

I don't know.

Pierre stopped his own work so he could help Marie. Soon their tests showed that there must be two unknown elements.

The second element is more radiant than the first. Perhaps we should name it *radium*.

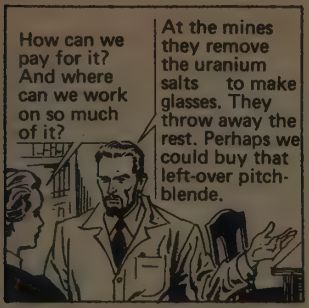
If you find it, you may call it anything you wish!

The Curies knew many things about what these new elements could do. But for others to believe their findings, they had to see the elements and weigh them.

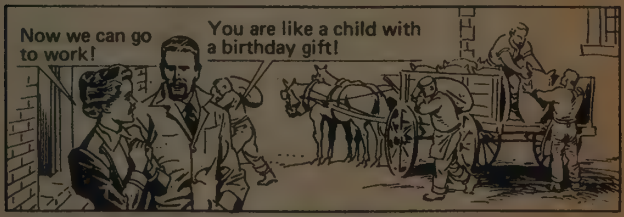
If what you say is true, you will have changed everything we believe.

Then we must prove it to you by finding pure radium!

Marie had found the signs of the new elements in pitchblende. She would need tons of pitchblende to prove her findings.


How can we pay for it? And where can we work on so much of it?
At the mines they remove the uranium salts to make glasses. They throw away the rest. Perhaps we could buy that left-over pitch-blende.

A friend arranged for the Curies to receive the pitchblende. At last it arrived!



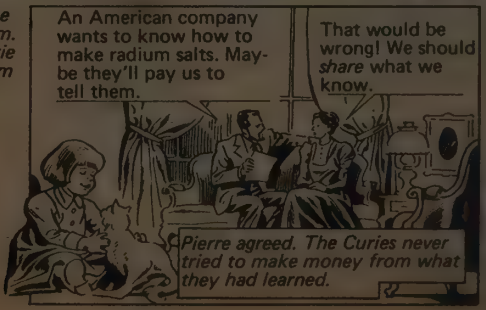
Marie began working at once.

For four years they carried on their research. Pierre also worked at his teaching job. Marie became a teacher, too, in order to help pay for their experiments.

Pierre's father had come to live with them. One evening in 1902, Marie had some news for him.

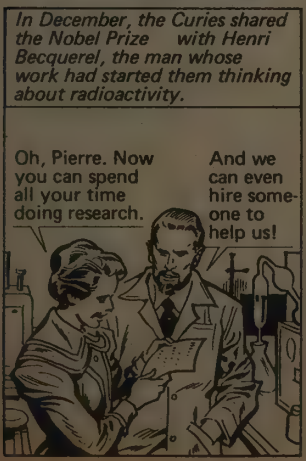
That night after Irene was asleep, they walked back to the old shed. In the dark they saw a beautiful light. No one had ever seen it before. It was the glow of radium.

Soon everyone wanted radium. But what Marie had made from all her work was only enough to fill the tip of a teaspoon.


An American company wants to know how to make radium salts. Maybe they'll pay us to tell them.
That would be wrong! We should *share* what we know.
Pierre agreed. The Curies never tried to make money from what they had learned.

In June, 1903, Marie won her Doctor of Science degree.
Congratulations!

The Curies received many honors.
You are the first woman to be invited here!
I am glad I could come.

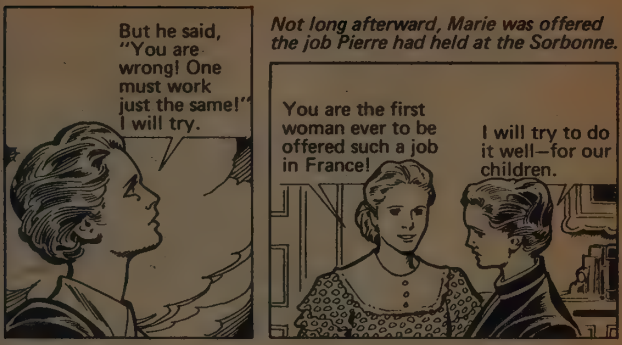

In December, the Curies shared the Nobel Prize with Henri Becquerel, the man whose work had started them thinking about radioactivity.
Oh, Pierre. Now you can spend all your time doing research.
And we can even hire someone to help us!

In 1904, Pierre was given a job at the Sorbonne. The Curies also had a new daughter.
Isn't she pretty?
Yes, like a little doll.

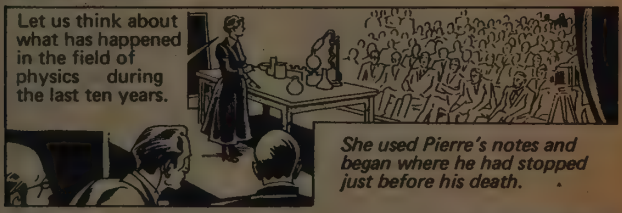
In 1906, the Curies rented a country cottage for the Easter holidays. It was a happy time for them.
Life with you has been wonderful, Marie.

The day after they returned from their holiday, Marie came back late from a shopping trip. She found two old friends waiting for her. Their faces frightened her.
Marie, there has been an accident. Pierre has been killed.

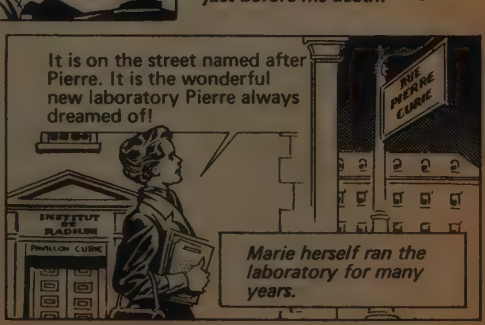
Oh, no!
Marie walked past her friends into the garden.
Once I said to Pierre that we could not live without each other.


But he said, "You are wrong! One must work just the same!" I will try.
Not long afterward, Marie was offered the job Pierre had held at the Sorbonne.
You are the first woman ever to be offered such a job in France!
I will try to do it well—for our children.

On November 5, the Hall of Science was crowded. Marie Curie was to give her first lecture. She entered, made a little bow, and began to speak.


Let us think about what has happened in the field of physics during the last ten years.
She used Pierre's notes and began where he had stopped just before his death.

Marie won many more prizes, one of them a second Nobel Prize in 1911. She was busy with a new laboratory being built in Paris.

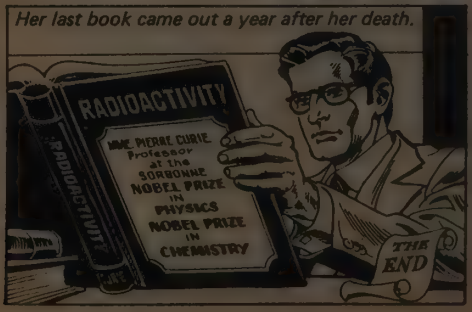

It is on the street named after Pierre. It is the wonderful new laboratory Pierre always dreamed of!
RUE PIERRE CURIE
INSTITUT DU RADIUM
PAVILLON CURIE
Marie herself ran the laboratory for many years.

In 1921, she and her daughters visited the United States. At the White House, President Harding presented her with some radium paid for by a group of American women.

Irene soon married Frederic Joliot, a young scientist, and together they carried on the work of the Curies. In 1935, they, too, would share a Nobel Prize.

Marie Curie died in 1934, poisoned by the radium she had worked with for so long.

Her last book came out a year after her death.



Do you remember?

In order to earn money for her sister's education, Marie worked as a:

a. sales clerk. b. governess. c. housemaid.

After her first visit to a laboratory, Marie knew that she wanted to:

a. become a scientist. b. study law.
c. work with pottery.

Marie married Pierre Curie, who was a fellow:

a. athlete. b. lawyer. c. scientist.

Marie Curie discovered:

a. silver. b. radium. c. gold.

Quiz Yourself

(Answers at end of section)

Words to know

relatives	aunts, uncles, and cousins
crime	something that is against the law
experiments	tests carried out in a laboratory
inspector	a person who checks to see if things are running correctly
graduated	finished school and received a diploma

Can you use them?

Using the words above, complete the following sentences.

1. Stealing money from someone is a _____ .
2. After he _____ from high school, he decided to go to college.
3. The city _____ told the owner of the building to fix the broken windows.
4. After making many _____ , scientists learned that smoking is bad for a person's health.
5. All the _____ came to the family dinner.

Using pictures

In reading illustrated stories, you will find it helpful to "read" the pictures as well as the words. Below is a picture of Marie Curie's classroom in Poland. When Marie was a student, her teacher taught the girls Polish history even though the Russian government didn't allow it. Now look at the pictures on pages 13 and 14 to see some of the other things Marie wasn't allowed to do because of her background.

While you are reading

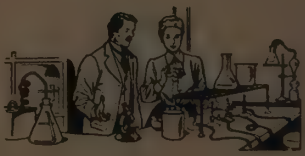
Many people helped Marie Curie during her life. Some taught her the lessons she needed to become a good scientist. Others helped her in her career. While you are reading, make a list of all the people who helped Marie.

_____

_____

_____

_____



How well did you read?

When you have finished reading, answer the following questions.

1. Why did the teacher always call on Marya Sklodovska when the Russian inspector wanted to question one of her pupils?

   (Check the correct answer.)

   _____ a. Marya was not afraid of the Russians.

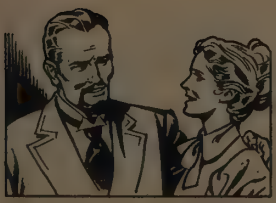
   _____ b. Marya was the smartest girl in the class.

   _____ c. Marya was the only student who could speak Russian.

   _____ d. Marya liked to talk in front of the class.

2. Why did Marya's father send her to the country after she finished high school?

   (Check the correct answer.)



   _____ a. He thought that a trip would be good for her health.

   _____ b. Marya wasn't old enough to go on to college.

   _____ c. He wanted Marya to look for a teaching job.

   _____ d. He wanted Marya to have fun visiting her cousins.

3. What things caused Marie trouble in her first job?

(Check the correct *answers.*)

_____ a. She was often too sick to work.

_____ b. Some people didn't pay her on time.

_____ c. She was lazy.

_____ d. She was rude to the people who hired her.

_____ e. Some people thought she was too young for the job.

4. Why did Marie want to get her own room while she attended the Sorbonne rather than stay with her sister?

(Check the correct answer.)

_____ a. She had trouble studying at Bronya's apartment.

_____ b. She wanted to be free to see Pierre Curie more often.

_____ c. She didn't get along with Bronya and her husband.

_____ d. She wanted to be closer to her laboratory.

5. Why did Marie never marry Casimir Z?

(Check the correct answer.)

_____ a. She fell in love with Pierre Curie.

_____ b. She decided to attend the Sorbonne instead of getting married.

_____ c. Her father was ill, and she was needed at home.

_____ d. Casimir's parents didn't think she was good enough for him.

Using what you've read

After she finished high school, Marie began looking for a job. To get people to hire her, she wrote letters telling of her background, her schooling, and her ability to do the job. Imagine that you are applying for an after-school job. Write a letter to someone asking him or her to hire you. Be sure to say exactly *what* job you want, *what* qualities and skills you have to do the job well, and *why* you want the job.

ANSWER KEY

MADAME CURIE

Can you use them?

1. crime
2. graduated
3. inspector
4. experiments
5. relatives

How well did you read?

1. b
2. d
3. b, e
4. a
5. d

NOTES

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NOTES

COMPLETE LIST OF POCKET CLASSICS AVAILABLE

CLASSICS

C 1 Black Beauty
C 2 The Call of the Wild
C 3 Dr. Jekyll and Mr. Hyde
C 4 Dracula
C 5 Frankenstein
C 6 Huckleberry Finn
C 7 Moby Dick
C 8 The Red Badge of Courage
C 9 The Time Machine
C10 Tom Sawyer
C11 Treasure Island
C12 20,000 Leagues Under the Sea
C13 The Great Adventures of Sherlock Holmes
C14 Gulliver's Travels
C15 The Hunchback of Notre Dame
C16 The Invisible Man
C17 Journey to the Center of the Earth
C18 Kidnapped
C19 The Mysterious Island
C20 The Scarlet Letter
C21 The Story of My Life
C22 A Tale of Two Cities
C23 The Three Musketeers
C24 The War of the Worlds
C25 Around the World in Eighty Days
C26 Captains Courageous
C27 A Connecticut Yankee in King Arthur's Court
C28 The Hound of the Baskervilles
C29 The House of the Seven Gables
C30 Jane Eyre

COMPLETE LIST OF POCKET CLASSICS AVAILABLE (cont'd)

C31 The Last of the Mohicans
C32 The Best of O. Henry
C33 The Best of Poe
C34 Two Years Before the Mast
C35 White Fang
C36 Wuthering Heights
C37 Ben Hur
C38 A Christmas Carol
C39 The Food of the Gods
C40 Ivanhoe
C41 The Man in the Iron Mask
C42 The Prince and the Pauper
C43 The Prisoner of Zenda
C44 The Return of the Native
C45 Robinson Crusoe
C46 The Scarlet Pimpernel
C47 The Sea Wolf
C48 The Swiss Family Robinson
C49 Billy Budd
C50 Crime and Punishment
C51 Don Quixote
C52 Great Expectations
C53 Heidi
C54 The Illiad
C55 Lord Jim
C56 The Mutiny on Board H.M.S. Bounty
C57 The Odyssey
C58 Oliver Twist
C59 Pride and Prejudice
C60 The Turn of the Screw

COMPLETE LIST OF POCKET CLASSICS AVAILABLE (cont'd)

SHAKESPEARE

S 1 As You Like It
S 2 Hamlet
S 3 Julius Caesar
S 4 King Lear
S 5 Macbeth
S 6 The Merchant of Venice
S 7 A Midsummer Night's Dream
S 8 Othello
S 9 Romeo and Juliet
S10 The Taming of the Shrew
S11 The Tempest
S12 Twelfth Night

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BIOGRAPHIES

B 1 Charles Lindbergh
B 2 Amelia Earhart
B 3 Houdini
B 4 Walt Disney
B 5 Davy Crockett
B 6 Daniel Boone
B 7 Elvis Presley
B 8 The Beatles
B 9 Benjamin Franklin
B10 Martin Luther King, Jr.
B11 Abraham Lincoln
B12 Franklin D. Roosevelt
B13 George Washington
B14 Thomas Jefferson
B15 Madame Curie
B16 Albert Einstein
B17 Thomas Edison
B18 Alexander Graham Bell
B19 Vince Lombardi
B20 Pelé
B21 Babe Ruth
B22 Jackie Robinson
B23 Jim Thorpe
B24 Althea Gibson

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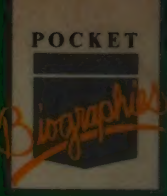

Madame Curie

The lives of well-known men and women have influenced and shaped our history. In the Pocket Biographies, we meet many of these people whose contributions to science, government, medicine, sports and entertainment have deeply affected all of us. Their achievements support the famous statement of Thomas Carlyle: "Biography is only history."